

# Memorandum

To: Commissioners Christmann, Haugen-Hoffart and Kringstad

From: Adam Renfandt, Public Utility Analyst



Date: February 13, 2025

Re: Northern States Power, 2021 Electric, Annual Report, Case No. PU-22-183

On May 2, 2022, NSP filed its 2021 earnings report. Within it, they reported a weather-normalized return on equity (ROE) of 9.62% using an “Updated Method” to weather normalize its sales and earnings in addition to now applying a jurisdictional adjustment to its investments based on jurisdictional hourly load (Table 1 – 2021 “Updated Method”). Table 1 shows this “Updated Method” resulted in a revenue deficiency / under-earnings of \$584,041, while its business-as-usual method of weather normalizing sales without adjusting its investments shows an over-earnings of \$7.1M (Table 1 – “2020 Method” (i.e., the same method as every prior one as far as Staff is aware)).

In reviewing, Staff discovered that NSP was not only weather normalizing sales, but was also adjusting its generation and transmission investments based on jurisdictional peak demand. For the first time and without first obtaining Commission approval, NSP had reallocated generation and transmission investments based on ND’s contribution to NSP’s monthly system peak based on the individual weather-normalized hour within each month that ND’s system peaked compared to NSP’s other jurisdictions. Absent this change, NSP’s weather-normalized ROE was 11.34% (Table 1 – “2020 Method”). Staff determined such a change was not in the ratepayers’ interest and did not accurately reflect cost causation. Furthermore, NSP was unable to provide a persuasive reason for the adjustment other than to report results with less volatility that would be more comparable to the test year in the prior rate case.

The settlement in NSP’s prior rate case (Case No. PU-20-441) contained a provision to refund weather-normalized earnings above 9.75% to ratepayers. It did not consider adjusting NSP’s investments in generation and transmission based on jurisdictional demand. By introducing this adjustment for the first time and applying it, NSP no longer had to refund \$7.1M of over-earnings per the rate case settlement to ratepayers; instead, with this adjustment, NSP was now proposing a refund of \$0.

The following example illustrates how this adjustment works. Fargo’s actual monthly load peaked on September 28, 2021, at 5:00 pm, while Minneapolis’ actual load peaked on September 16, 2021, also at 5:00 pm. NSP then ran its novel hourly weather-

normalized algorithm, which caused the actual day and hour of Minneapolis' peak to shift to September 1 at 5:00 pm and Fargo's peak to shift to September 17 at 5:00 pm. With this adjustment, ND's hourly peak shifted such that ND's peak on that day in September on that specific hour was greater than Minneapolis' peak. As a result, ND was now allocated 5.49% rather than 4.37% in September for generation and transmission investments.<sup>3</sup> Therefore, additional cost was assigned to ND in 2021 according to hourly Fargo and Minneapolis load in what NSP described in a data request as a:

“technique used in the Company's 2021 electric earnings report brings the allocators more in line with how the rate case test year forecast was developed, since it accounts for deviations from normal weather rather than simply using actuals”<sup>4</sup>.

The jurisdictional adjustment described above transferred \$24M in total rate base to the North Dakota jurisdiction in 2021<sup>5</sup> - all based on hourly Fargo and Minneapolis load. NSP did not propose this in a separate filing to consider, but applied it without Commission approval, applied it to the financials, and based its annual report on the results, which is used to report and calculate how much earnings are to be refunded to ratepayers.

Beyond applying this jurisdictional adjustment without Commission approval, Staff finds it alarming that NSP performed this peak jurisdictional adjustment knowing the Commission's history with litigating the type of peak allocator to use for setting rates in a prior rate case (PU-12-813). The issue is also addressed in NSP's testimony in the rate case currently before the Commission. However, NSP did not propose this change to the jurisdictional peak demand allocator for reporting purposes prior to applying this significant departure from prior practice and did not involve the Commission.

NSP was also applying a new top-side adjustment outside of weather normalizing sales based on its judgement. In this case, it adjusted residential sales down to reflect its belief that during COVID consumers were now at home more, and as such, they used their air conditioning more. Staff does not believe this to be a weather-related adjustment. NSP did not describe this adjustment as weather-related, but behavioral-related<sup>6</sup>. Staff believes this only purportedly attempts to adjust residential sales down because some consumers may decide to turn their air conditioning up during COVID work-at-home situations. NSP did not disclose this top-side adjustment, as it was discovered through data requests. Staff does not find this to be a weather-related adjustment and so should not reduce residential consumption in order to reduce its weather-related over-earnings. Staff also wonders why NSP did not apply this top-side

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<sup>3</sup> DR 1-3 and DR 1-4

<sup>4</sup> DR 5-1 and Table 2 below

<sup>5</sup> DR 3-3

<sup>6</sup> DR15-1, DR2-4, DR2-7

adjustment to commercial sales to reflect how businesses were either temporarily closed or shuttered altogether. This top-side adjustment reduced refunds by \$376,000 in 2021 and \$405,000 in 2022, and Staff believes these amounts should be refunded back to ratepayers.

To explain this top-side adjustment, NSP used the Google Mobility Index (GMI) data to apply its COVID adjustment. It measures how often people visit locations. NSP described it the following way: "Google Mobility data which measure location duration from cell phone data and are used to account for behavioral changes during the COVID-19 pandemic."<sup>7</sup> Staff questions the validity of using the GMI data as a baseline in this analysis regardless of the logic of whether NSP thinks it to be a weather adjustment because it represents location duration based on the median value from Jan 3 through February 6, 2020<sup>8</sup>. Staff questions whether this represents a large enough period to validly represent what is a "normal period", as NSP uses a 20-year period for its routine weather normalization for sales<sup>9</sup>. Staff is not aware that NSP performed any analysis to show that such a period is to be considered normal for either ND or any other jurisdiction. However NSP uses GMI, the issue is moot, because the settlement calls for earnings above a weather-normalized ROE and not a work-at-home, weather-normalized ROE.

On October 25, 2024, in Case No. PU-24-362, NSP agreed that it would only weather-normalize sales and would not apply its peak demand adjustment to its investments. This resulted in an ROE of 11.34%, and a refund of \$7,107,218 to customers through the Bill Credit Rider to be applied over a 12-month period effective January 1, 2025 (See Table 1). This represents the refund owed to customers for NSP's over-earnings above 9.75%. However, Staff still disagrees with NSP in applying its top-side COVID adjustment to reduce residential sales by \$376,000 in 2021, and \$405,000 in 2022. Staff believes these COVID refunds can be sorted out in the rate case currently before the Commission. Staff recommends that the Commission close the case.

c: Alex Nisbet, NSP

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<sup>7</sup> DR1-15

<sup>8</sup> [https://support.google.com/covid19-mobility/answer/9824897?hl=en&ref\\_topic=9822927&sjid=17266809016436584662-NC](https://support.google.com/covid19-mobility/answer/9824897?hl=en&ref_topic=9822927&sjid=17266809016436584662-NC)

<sup>9</sup> DR1-15

Table 1 (Revenue Deficiency Represents Over-Earnings Above 9.75%):

Line No.	NSPM - Driver 00 Report 5yr ALL IN	2021 Actuals (2020 Method)	2021 "Updated Method"	Delta
		NSPM ND Electric Retail	NSPM ND Electric Retail	NSPM ND Electric Retail
		2021	2021	20201
146	<b>Rate of Return (ROR)</b>			
147	Total Operating Income	50,494,341	46,387,738	(4,106,603)
148	<u>Total Rate Base</u>	<u>636,412,307</u>	<u>660,497,104</u>	<u>24,084,797</u>
149	ROR (Operating Income / Rate Base)	7.93%	7.02%	(0.91%)
150				
151	<b>Return on Equity (ROE)</b>			
152	Net Operating Income	50,494,341	46,387,738	(4,106,603)
153	Debt Interest (Rate Base * Weighted Cost of Debt)	(12,410,040)	(12,879,694)	(469,654)
154	Earnings Available for Common	38,084,301	33,508,045	(4,576,256)
155	<u>Equity Rate Base (Rate Base * Equity Ratio)</u>	<u>335,707,492</u>	<u>348,412,222</u>	<u>12,704,730</u>
156	ROE (earnings for Common / Equity)	11.34%	9.62%	(1.73%)
157				
158	<b>Revenue Deficiency</b>			
159	Required Operating Income (Rate Base * Required ROR)	45,121,633	46,829,245	1,707,612
160	<u>Net Operating Income</u>	<u>50,494,341</u>	<u>46,387,738</u>	<u>(4,106,603)</u>
161	Operating Income Deficiency	(5,372,709)	441,506	5,814,215
162				
163	Revenue Conversion Factor (1/(1--Composite Tax R))	1.322837	1.322837	
164	<u>Revenue Deficiency (Income Deficiency * Conversion F)</u>	<u>(7,107,218)</u>	<u>584,041</u>	<u>7,691,259</u>

Table 2:

Line No.	NSPM - Driver 00 Report 5yr ALL IN	2021 Actuals (2020 Method)	2021 "Updated Method"	Delta
		NSPM ND Electric Retail	NSPM ND Electric Retail	NSPM ND Electric Retail
		2021	2021	20201
22	<b>Rate Base</b>			
23	Plant Investment	1,403,755,887	1,459,160,419	55,404,532
24	<u>Depreciation Reserve</u>	<u>647,959,462</u>	<u>676,549,989</u>	<u>28,590,527</u>
25	Net Utility Plant	755,796,425	782,610,430	26,814,005
26	CWIP	3,202,275	3,284,575	82,300
27				
28	Accumulated Deferred Taxes	176,354,652	182,721,513	6,366,862
29	DTA - NOL Average Balance		(627,767)	(627,767)
30	DTA - State Tax Credit Average Balance		(8,350)	(8,350)
31	DTA - Federal Tax Credit Average Balance	<u>(30,464,565)</u>	<u>(32,347,707)</u>	<u>(1,883,142)</u>
32	Total Accum Deferred Taxes	145,890,086	149,737,689	3,847,603
33				
34	Cash Working Capital			
35	Materials and Supplies	10,651,010	11,202,512	551,501
36	Fuel Inventory	4,690,293	4,747,804	57,511
37	Non-plant Assets and Liabilities	3,494,406	3,791,482	297,075
38	Customer Advances	(87,969)	(87,969)	
39	Customer Deposits	(45,288)	(45,288)	
40	Prepays and Other	4,111,553	4,241,560	130,007
41	<u>Regulatory Amortizations</u>	<u>489,687</u>	<u>489,687</u>	<u>(0)</u>
42	Total Other Rate Base Items	23,303,692	24,339,788	1,036,096
43				
44	<b>Total Rate Base</b>	<b>636,412,307</b>	<b>660,497,104</b>	<b>24,084,797</b>

Table 3:

Line No.	NSPM - Driver 00 Report 5yr ALL IN	2021 Actuals (2020 Method)	2021 "Updated Method"	Delta
		NSPM ND Electric Retail	NSPM ND Electric Retail	NSPM ND Electric Retail
		2021	2021	20201
46	<b>Operating Revenues</b>			
47	Retail	227,702,548	227,702,548	
48	Interdepartmental			
49	<u>Other Operating Rev - Non-Retail</u>	<u>65,531,751</u>	<u>67,681,737</u>	<u>2,149,986</u>
50	<b>Total Operating Revenues</b>	<b>293,234,300</b>	<b>295,384,285</b>	<b>2,149,986</b>
51				
52	<b>Expenses</b>			
53	Operating Expenses:			
75	<b>Total Operating Expenses</b>	<b>177,009,855</b>	<b>181,926,676</b>	<b>4,916,821</b>
76				
77	Depreciation	48,833,685	50,482,669	1,648,984
78	Amortization	7,863,940	7,867,547	3,607
79				
80	<b>Taxes:</b>			
89	<b>Total Taxes Other Than Income</b>	<b>6,748,109</b>	<b>8,611,181</b>	<b>1,863,072</b>
90				
91	<b>Income Before Taxes</b>			
97	<b>Total Before Tax Book Income</b>	<b>52,778,710</b>	<b>46,496,212</b>	<b>(6,282,498)</b>
98				
99	<b>Tax Additions</b>			
106	<b>Total Tax Additions</b>	<b>54,699,584</b>	<b>58,204,214</b>	<b>3,504,630</b>
107				
108	<b>Tax Deductions</b>			
116	<b>Total Tax Deductions</b>	<b>81,823,947</b>	<b>102,922,528</b>	<b>21,098,581</b>
117				
118	<b>State Taxes</b>			
123	<b>Total State Income Taxes</b>	<b>1,035,412</b>	<b>19,157</b>	<b>(1,016,255)</b>
124				
125	<b>Federal Taxes</b>			
131	<b>Total Federal Income Taxes</b>	<b>1,248,957</b>	<b>89,317</b>	<b>(1,159,640)</b>
132				
133	<b>Total Taxes</b>			
134	<b>Total Taxes Other than Income</b>	<b>6,748,109</b>	<b>8,611,181</b>	<b>1,863,072</b>
135	<b>Total Federal and State Income Taxes</b>	<b>2,284,369</b>	<b>108,474</b>	<b>(2,175,896)</b>
136	<b>Total Taxes</b>	<b>9,032,478</b>	<b>8,719,654</b>	<b>(312,824)</b>
137				
138	<b>Total Operating Revenues</b>	<b>293,234,300</b>	<b>295,384,285</b>	<b>2,149,986</b>
139	<b>Total Expenses</b>	<b>242,739,959</b>	<b>248,996,547</b>	<b>6,256,588</b>
140				
141	AFDC Debt			
142	AFDC Equity			
143				
144	<b>Net Income</b>	<b>50,494,341</b>	<b>46,387,738</b>	<b>(4,106,603)</b>